

【CLAIMS】

【Claim 1】

A method of performing, by a user equipment (UE), a beam failure recovery in a wireless communication system, the method comprising:

detecting a beam failure;

identifying a new beam for the beam failure recovery; and

transmitting, to a base station (BS), a beam failure recovery request based on a Physical Random Access Channel (PRACH) resource,

wherein the PRACH resource includes a first PRACH resource and a second PRACH resource,

wherein the first PRACH resource and the second PRACH resource are associated with a Synchronization Signal block (SSB),

wherein a channel state information (CSI)-reference signal (RS) is spatially quasi co-located (QCL) with the SSB,

wherein, based on the SSB being identified as the new beam, the beam failure recovery request is transmitted based on the first PRACH resource, and

wherein, based on the CSI-RS being identified as the new beam, the beam failure recovery request is transmitted based on the second PRACH resource associated with the SSB. —

~~【Claim 2】~~

~~The method of claim 1~~, wherein, based on both the SSB and the CSI-RS being identified as the new beam, the beam failure recovery request is transmitted based on the second PRACH resource.

【Claim ~~3~~2】

The method of claim 1, wherein the new beam is at least one RS satisfying a predefined condition.

【Claim ~~4~~3】

A method of performing, by a base station (BS), a beam failure recovery in a wireless communication system, the method comprising:

transmitting, to a user equipment (UE), information related to a new beam identification for the beam failure recovery; and

receiving a beam failure recovery request from the UE based on a Physical Random Access Channel (PRACH) resource,

wherein the PRACH resource includes a first PRACH resource and a second PRACH resource,

wherein the first PRACH resource and the second PRACH resource are associated with a Synchronization Signal block (SSB),

wherein a channel state information (CSI)-reference signal (RS) is spatially quasi co-located (QCL) with the SSB,

wherein, based on the new beam being the SSB, the beam failure recovery request is based on the first PRACH resource, and

wherein, based on the new beam being the CSI-RS, the beam failure recovery request is based on the second PRACH resource associated with the SSB.—

~~【Claim 5】~~

~~The method of claim 4~~, wherein, based on both the SSB and the CSI-RS being identified as the new beam, the beam failure recovery request is transmitted based on the second PRACH resource.

【Claim 64】

The method of claim 43, wherein the new beam is at least one RS satisfying a predefined condition.

【Claim 75】

A user equipment (UE) configured to perform a beam failure recovery in a wireless communication system, the UE comprising:

at least one transceiver configured to transmit and receive a radio signal; and

at least one processor functionally connected to the at least one transceiver,

wherein the at least one processor is configured to:

detect a beam failure;

identify a new beam for the beam failure recovery; and

transmit a beam failure recovery request to a base station based on a Physical Random Access Channel (PRACH) resource,

wherein the PRACH resource includes a first PRACH resource and a second PRACH resource,

wherein the first PRACH resource and the second PRACH resource are associated with a Synchronization Signal block (SSB),

wherein a channel state information (CSI)-reference signal (RS) is spatially quasi co-located (QCL) with the SSB,

wherein, based on the SSB being identified as the new beam, the beam failure recovery request is transmitted based on the first PRACH resource, and

wherein, based on the CSI-RS being identified as the new beam, the beam failure recovery request is transmitted based on the second PRACH resource associated with the SSB.—

~~【Claim 8】~~

~~The UE of claim 7~~, wherein, based on both the SSB and the CSI-RS being identified as the new beam, the beam failure recovery request is transmitted based on the second PRACH resource.

【Claim ~~96~~】

The UE of claim ~~75~~, wherein the new beam is at least one RS satisfying a predefined condition.